DATE: 05/27/2001

```
PATENT APPLICATION: US/09/847,208
                                                              TIME: 16:48:07
                     Input Set : A:\Pto.amc
                     Output Set: C:\CRF3\05272001\I847208.raw
      3 <110> APPLICANT: Saxon, Andrew
              Zhang, Ke
              Zhu, Daocheng
      5
      7 <120> TITLE OF INVENTION: FUSION MOLECULES AND TREATMENT OF
              IGE-MEDIATED ALLERGIC DISEASES
     10 <130> FILE REFERENCE: UC67.002A
C--> 12 <140> CURRENT APPLICATION NUMBER: US/09/847,208
C--> 12 <141> CURRENT FILING DATE: 2001-05-01
     12 <160> NUMBER OF SEQ ID NOS: 177
     14 <170> SOFTWARE: FastSEQ for Windows Version 4.0
     16 <210> SEQ ID NO: 1
     17 <211> LENGTH: 696
     18 <212> TYPE: DNA
     19 <213> ORGANISM: Homo sapiens
     21 <400> SEQUENCE: 1
     22 gagcccaaat cttgtgacaa aactcacaca tgcccaccgt gcccagcacc tgaactcctg 60
     23 gggggaccgt cagtetteet etteceecca aaacccaagg acacceteat gateteeegg 120
     24 acceptgagg teacatgegt ggtggtggae gtgagecaeg aagaceetga ggteaagtte 180
     25 aactggtacg tggacggcgt ggaggtgcat aatgttaaga caaagccgcg ggaggagcag 240
    26 tacaacagca cgtaccgtgt ggtcagcgtc ctcaccgtcc tgcaccagaa ctggatgaat 300
     27 ggaaaggagt acaagtgcaa ggtctccaac aaagccctcc cagcccccat cgagaaaacc 360
     28 atetecaaag ccaaagtgca geecegagaa ccaeaggtgt acaeeetgee eccateeegg 420
     29 gatgagetga ccaagaacca ggteageetg acetgeetgg teaaaggett etateecage 480
     30 gacatcgccg tggagtggga gagcaatggg cagccggaga acaactacaa gaccacgcct 540
     31 cccgtgctgg actccgtcgg ctccttcttc ctctacagca agctcaccgt ggacaagagc 600
     32 aggtggcagc aggggaacgt cttctcatgc tccgtgatgc atgaggctct gcacaaccac 660
     33 taccagcaga ggagcctctc cctgtctccg ggtaaa
     35 <210> SEQ ID NO: 2
     36 <211> LENGTH: 330
     37 <212> TYPE: PRT
     38 <213> ORGANISM: Homo sapiens
     40 <400> SEQUENCE: 2
     41 Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys
     42
     43 Ser Thr Ser Gly Gly Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr
     45 Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser
     46
                35
                                    40
     47 Gly Val His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser
                                55
     49 Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr
                            70
                                                75
     51 Tyr Ile Cys Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys
                        85
                                             90
     53 Lys Val Glu Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys
                    100
                                        105
     55 Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro
```

RAW SEQUENCE LISTING



RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/847,208

DATE: 05/27/2001 TIME: 16:48:07

Input Set : A:\Pto.amc

Output Set: C:\CRF3\05272001\I847208.raw

-56			115					120					125			
57	Lys	Pro	Lys	Asp	Thr	Leu	Met	Ile	Ser	Arg	Thr	Pro	Glu	Val	Thr	Cys
58	_	130	_	-			135					140				
59	Val	Val	Val	Asp	Val	Ser	His	Glu	Asp	Pro	Glu	Val	Lys	Phe	Asn	Trp
	145			•		150	'		-		155		-			160
61	Tvr	Val	Asp	Glv	Val	Glu	Val	His	Asn	Val	Lys	Thr	Lys	Pro	Arq	Glu
62	- 4		•	.4	165					170	•		-		175	
	Glu	Gln	Tvr	Asn		Thr	Tvr	Ara	Val	Val	Ser	Val	Leu	Thr	Val	Leu
64			-1-	180					185					190		
	His	Gln	Asn		Met	Asn	Glv	Lvs		Tvr	Lys	Cvs	Lvs		Ser	Asn
66			195				1	200		-1-	-1-	-1-	205			
	Lvs	Ala		Pro	Ala	Pro	Ile		Lvs	Thr	Ile	Ser		Ala	Lvs	Val
68		210					215		-1-				-1-		-1-	
	Gln		Ara	Gĺu	Pro	Gln		Tvr	Thr	Len	Pro		Ser	Ara	Asp	Glu
	225		9	<b></b>		230		- 1			235					240
		Thr	Lvs	Asn	Gln		Ser	T.e.11	Thr	Cvs	Leu	Val	Lvs	Glv	Phe	
72	DCu	1111	цуо	11011	245	· · · ·	001			250	200			<b>U 1</b>	255	-1-
	Pro	Sar	Aen	Τl۵		Val	Glu	Trn	Glu		Asn	Glv	Gln	Pro		Asn
74	110	Ser	пэр	260	riiu	VUI	Oiu	111	265	DCI	71011	Ory	0111	270	014	11011
	Aen	ጥህድ	Luc		Thr	Pro	Pro	Wa 1		Asn	Ser	Val	Glv		Phe	Phe
76	ASII	1 Y 1	275	1111	1111	110	110	280	БСС	1150	DCI	vai	285	DCI	1110	1110
	T.e.11	ጥህዮ		T.ve	T.e.11	Thr	Val		Lvs	Ser	Arg	Trn		Gln	Glv	Asn
78	шец	290	DCI	цуз	пси	1111	295	1100	Lys	JCI	*****9	300	0111	0111	O <sub>T</sub> y	11011
	Val		Ser	Cvs	Ser	Va 1		His	Glu	Δla	Leu		Asn	His	Tur	Gln
	305	1110		Cy5		310		1110	OIU	1110	315		*****	******	- 1 -	320
		Δra				Leu		Pro	Glv	Lvs	313					320
82	0111	1119	UCI	пса	325	10 u	JCI	110	0-1	330						
	<21¢	)> SE	EQ II	NO.						550						
			ENGTH													
			PE:													
					Homo	sap	oiens									
			EQUE			Jur		•								
						Asp	Lvs	Thr	His	Thr	Cys	Pro	Pro	Cvs	Pro	Ala
92	1		<i></i>	001	5		_10			10	010			0,10	15	
	_	Glu	Leu	Len	_	Glv	Pro	Ser	Val		Leu	Phe	Pro	Pro		Pro
94				20	1	1			25					30	-1-	
	Lvs	Asp	Thr		Met	Tle	Ser	Ara		Pro	Glu	Val	Thr		Val	Val
96	טעם	1100	35	Lou		,0	001	40			02.0		45	010		
	Val	Asn		Ser	His	Glu	Asp		Glu	Val	Lys	Phe		Tro	Tvr	Val
98	Vul	_	vul												- 1 -	
							~ ~							Glu	Glu	Gln
	65	Gry	Val	Oiu	Vul	70	11011	var	цуо	1111	75		**** 9	014	014	80
		r Ner		· ጥኮነ	e Ф177		r Vai	l Val	l Sei	c Val		Thr	· Val	Lei	ı His	Gln
102		. ASI	1 261	. 1111	85	· Mrč	, va.	. va.	. 501	90	. псс		. vu	. де	95	, 01
		- m~×	. Mot	- 7\ a r		, Tuc	. 61,	, m.,,	c Tue		Tue	. Val	San	~ 1\cr		s Ala
		1 11	) Me	100		, гу	, GI	тту	105		о пра	va.	. 561	110		, Ara
104		, Dra	<b>.</b> λ1-		-	. G1:	1 T 1.	- ጥኮ፣			c Luc	. Al-	T.176			n.Pro
100		י בו(	115		) TT6	916	· nys	120		. <i>5</i> e1	. ചус	, WTC	г Буз 125		. 311	
		· (°1)			, Wal	ጥተታጭ	- ጥኮ፣			Dr	, Ç <sub>D</sub> ,	- Arc			1 T.01	ı Thr
TO	, wr.	المن و	1 LT(	י פדו	ı val	TAI	. 1111	י הפו	4 ET(	, ,,	اعد ر	. 41	, war	, 310	<u>, пе</u> (	



RAW SEQUENCE LISTING DATE: 05/27/2001 PATENT APPLICATION: US/09/847,208 TIME: 16:48:07

Input Set : A:\Pto.amc

Output Set: C:\CRF3\05272001\I847208.raw

```
108
        130
                            135
109 Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser
                        150
110 145
                                            155
111 Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr
                    165
                                        170
113 Lys Thr Thr Pro Pro Val Leu Asp Ser Val Gly Ser Phe Phe Leu Tyr
114
                180
                                    185
115 Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe
            195
                                200
116
117 Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Gln Gln Arg
        210
                            215
119 Ser Leu Ser Leu Ser Pro Gly Lys
120 225
                        230
123 <210> SEQ ID NO: 4
124 <211> LENGTH: 1445
125 <212> TYPE: DNA
126 <213> ORGANISM: Homo sapiens
128 <400> SEQUENCE: 4
129 tocacacaga goocatoogt ottoccottg accogotgot goaaaaacat tocotocaat 60
130 gccacctccg tgactctggg ctgcctggcc acgggctact tcccggagcc ggtgatggtg 120
131 acctgggaca caggeteect caacgggaca actatgacet taccagecae caeceteaeg 180
132 ctctctqqtc actatqccac catcaqcttq ctgaccqtct cgggtgcgtg ggccaagcag 240
133 atgttcacct geogtgtgge acacacteca tegtecacag actgggtega caacaaaace 300
134 ttcaqcqtct qctccaqqqa cttcaccccq cccaccqtga agatcttaca gtcgtcctgc 360
135 gacggcggcg ggcacttccc cccgaccatc cagctcctgt gcctcgtctc tgggtacacc 420
136 ccaqqqacta tcaacatcac ctqqctqqaq qacqqqcaqq tcatqqacqt qqacttqtcc 480
137 accgcctcta ccacgcagga gggtgagctg gcctccacac aaagcgagct caccctcagc 540
138 cagaagcact ggctgtcaga ccgcacctac acctgccagg tcacctatca aggtcacacc 600
139 tttgaggaca gcaccaagaa gtgtgcagat tccaacccga gaggggtgag cgcctaccta 660
140 ageeggeeca geeegttega cetgtteate egeaagtege eeaegateae etgtetggtg 720
141 gtggacctgg cacccagcaa ggggaccgtg aacctgacct ggtcccgggc cagtgggaag 780
142 cctqtqaacc actccaccag aaaggaggag aagcagcgca atggcacgtt aaccgtcacg 840
143 tecaceetge eggtgggeae eegagaetgg ategaggggg agacetacea gtgeagggtg 900
144 acceaecce acctgeecag ggeecteatg eggteeacga ceaagaccag eggeeegegt 960
145 gctgccccgg aagtctatgc gtttgcgacg ccggagtggc cggggagccg ggacaagcgc 1020
146 accetegeet geetgateea gaactteatg eetgaggaea teteggtgea gtggetgeae 1080
147 aacgaggtgc agctcccgga cgcccggcac agcacgacgc agccccgcaa gaccaagggc 1140
148 tccggcttct tcgtcttcag ccgcctggag gtgaccaggg ccgaatggga gcagaaagat 1200
149 gagttcatct gccgtgcagt ccatgaggca gcgagcccct cacagaccgt ccagcgagcg 1260
150 gtgtctgtaa atcccggtaa atgacgtact cctgcctccc tccctcccag ggctccatcc 1320
151 agctgtgcag tggggaggac tggccagacc ttctgtccac tgttgcaatg accccaggaa 1380
152 gctaccccca ataaactgtg cctgctcaga gccccagtac acccattctt gggagcgggc 1440
153 agggc
                                                                       1445
155 <210> SEQ ID NO: 5
156 <211> LENGTH: 427
157 <212> TYPE: PRT
158 <213> ORGANISM: Homo sapiens
160 <400> SEQUENCE: 5
161 Ser Thr Gln Ser Pro Ser Val Phe Pro Leu Thr Arg Cys Cys Lys Asn
```



RAW SEQUENCE LISTING DATE: 05/27/2001 PATENT APPLICATION: US/09/847,208 TIME: 16:48:07

Input Set : A:\Pto.amc

Output Set: C:\CRF3\05272001\I847208.raw

1.00	1				-					10					1 5	
162		D	0	7	5	mb	0	<b>57-3</b>	m1	10	C1	C	τ	7.1.	15	C1
	тте	Pro	Ser		Ата	Thr	Ser	vaı		Leu	СТУ	Cys	ьeu	Ala	Thr	GIÀ
164	_	-1	_	20	_			** 7	25	<b></b>		m1	01	30	<b>.</b>	<b>.</b>
	Tyr	Phe		GLu	Pro	vaı	Met		Tnr	Trp	Asp	Inr		Ser	Leu	Asn
166			35		_,	_	_	40			_	<b></b>	45	_	~1	
	Gly		Thr	Met	Thr	Leu		Ala	Thr	Thr	Leu		Leu	Ser	GLy	His
168	_	50			_	_	55			_		60	_		_	
	_	Ala	Thr	Ile	Ser		Leu	Thr	Val	Ser		Ala	Trp	Ala	Lys	
170						70	_				75					80
171	Met	Phe	Thr	Cys		Val	Ala	His	Thr		Ser	Ser	Thr	Asp		Val
172					85					90					95	
	Asp	Asn	Lys		Phe	Ser	Val	Cys		Arg	Asp	Phe	Thr	Pro	Pro	Thr
174				100					105					110		
175	Val	Lys		Leu	Gln	Ser	Ser		Asp	Gly	Gly	Gly		Phe	Pro	Pro
176			115					120			•		125			
177	Thr	Ile	Gln	Leu	Leu	Cys	Leu						Pro	Gly	Thr	Ile
178		130					135					140				
179	Asn	Ile	Thr	Trp	Leu		Asp	Gly	Gln	Val		Asp	Val	Asp	Leu	Ser
	145					150					155	,				160
181	Thr	Ala	Ser	Thr	Thr	Gln	Glu	Gly	Glu		Ala	Ser	Thr	Gln	Ser	Glu
182					165					170					175	
183	Leu	Thr	Leu	Ser	Gln	Lys	His	Trp	Leu	Ser	Asp	Arg	Thr	Tyr	Thr	Cys
184				180					185					190		
185	Gln	Val	Thr	Tyr	Gln	Gly	His	Thr	Phe	Glu	Asp	Ser	Thr	Lys	Lys	Cys
186			195					200					205			
187	Ala	Asp	Ser	Asn	Pro	Arg	Gly	Val	Ser	Ala	Tyr	Leu	Ser	Arg	Pro	Ser
188		210					215					220				
189	Pro	Phe	Asp	Leu	Phe	Ile	Arg	Lys	Ser	Pro	Thr	Ile	Thr	Cys	Leu	Val
	225					230					235					240
191	Val	Asp	Leu	Ala	Pro	Ser	Lys	Gly	Thr	Val	Asn	Leu	Thr	Trp	Ser	Arg
192					245					250					255	
193	Ala	Ser	Gly	_	Pro	Val	Asn	His	Ser	Thr	Arg	Lys	Glu	Glu	Lys	Gln
194				260					265					270		
195	Arg	Asn		Thr	Leu	Thr	Val	Thr	Ser	Thr	Leu	Pro		Gly	Thr	Arg
196			275					280					285			
197	Asp	Trp	Ile	Glu	Gly	Glu		Tyr	Gln	Cys	Arg		Thr	His	Pro	His
198		290					295					300				
		Pro	Arg	Ala	Leu	Met	Arg	Ser	Thr	Thr	Lys	Thr	Ser	Gly	Pro	Arg
	305					310					315					320
201	Ala	Ala	Pro	Glu	Val	Tyr	Ala	Phe	Ala	Thr	Pro	Glu	${\tt Trp}$	Pro	Gly	Ser
202					325					330					335	
203	Arg	Asp	Lys	Arg	Thr	Leu	Ala	Cys			Gln	Asn	Phe	Met	Pro	Glu
204				340				•	345					350		
205	Asp	Ile	Ser	Val	Gln	Trp	Leu	His	Asn	Glu	Val	Gln	Leu	Pro	Asp	Ala
206			355					360					365			
207	Arg	His	Ser	Thr	Thr	Gln	Pro	Arg	Lys	Thr	Lys	Gly	Ser	Gly	Phe	Phe
208	-	370					375					380				
209	Val	Phe	Ser	Arg	Leu	Glu	Val	Thr	Arg	Ala	Glu	Trp	Glu	Gln	Lys	Asp
210	385					390					395					400



## RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/847,208

DATE: 05/27/2001 TIME: 16:48:07

Input Set : A:\Pto.amc

Output Set: C:\CRF3\05272001\1847208.raw

	Glu	Phe	Ile	Cys	Arg	Ala	Val	His	Glu	Ala	Ala	Ser	Pro	Ser		Thr
212					405					410					415	
	Val	Gln	Arg		Val	Ser	Val	Asn		Gly	Lys					
214	420 425															
217	<210> SEQ ID NO: 6															
218	<211> LENGTH: 320															
	O <212> TYPE: PRT															
220	<213	3> OI	RGAN	ISM:	Homo sapiens											
	<400															
223	Phe	Thr	Pro	Pro	Thr	Val	Lys	Ile	Leu	Gln	Ser	Ser	Cys	Asp	Gly	Gly
224					5					10					15	
225	Gly	His	Phe	Pro	Pro	Thr	Ile	Gln	Leu	Leu	Cys	Leu	Val	Ser	Gly	Tyr
226				20					25					30		
227	Thr	Pro	Gly	Thr	Ile	Asn	Ile	Thr	Trp	Leu	Glu	Asp	Gly	Gln	Val	Met
228			35					40					45			
229	Asp	Val	Asp	Leu	Ser	Thr	Ala	Ser	Thr	Thr	Gln	Glu	Gly	Glu	Leu	Ala
230		50					55					60				
231	Ser	Thr	Gln	Ser	Glu	Leu	Thr	Leu	Ser	Gln	Lys	His	Trp	Leu	Ser	Asp
232	65					70					75					80
233	Arg	Thr	Tyr	Thr	Cys	Gln	Val	Thr	Tyr	Gln	Gly	His	Thr	Phe	Glu	Asp
234					85					90					95	
235	Ser	Thr	Lys	Lys	Cys	Ala	Asp	Ser	Asn	Pro	Arg	Gly	Val	Ser	Ala	Tyr
236				100					105					110		
237	Leu	Ser	Arg	Pro	Ser	Pro	Phe	Asp	Leu	Phe	Ile	Arg	Lys	Ser	Pro	Thr
238			115					120					125			
239	Ile	Thr	Cys	Leu	Val	Val	Asp	Leu	Ala	Pro	Ser	Lys	Gly	Thr	Val	Asn
240		130	-				135					140				
241	Leu	Thr	Trp	Ser	Arg	Ala	Ser	Gly	Lys	Pro	Val	Asn	His	Ser	Thr	Arg
242	145		-		_	150			_		155					160
243	Lys	Glu	Glu	Lys	Gln	Arg	Asn	Gly	Thr	Leu	Thr	Val	Thr	Ser	Thr	Leu
244	_				165					170					175	
245	Pro	Val	Gly	Thr	Arg	Asp	Trp	Ile	Glu	Gly	Glu	Thr	Tyr	Gln	Cys	Arg
246				180					185					190		
247	Val	Thr	His	Pro	His	Leu	Pro	Arg	Ala	Leu	Met	Arg	Ser	Thr	Thr	Lys
248			195					200					205			
249	Thr	Ser	Gly	Pro	Arg	Ala	Ala	Pro	Glu	Val	Tyr	Ala	Phe	Ala	Thr	Pro
250		210					215					220				
251	Glu	Trp	Pro	Gly	Ser	Arg	Asp	Lys	Arg	Thr	Leu	Ala	Cys	Leu	Ile	Gln
252	225	-		_		230					235					240
		Phe	Met	Pro	Glu	Asp	Ile	Ser	Val	Gln	Trp	Leu	His	Asn	Glu	Val
254					245	_				250	_				255	
	Gln	Leu	Pro	Asp	Ala	Arg	His	Ser	Thr	Thr	Gln	Pro	Arg	Lys	Thr	Lys
256				260		_			265					270		
	Gly	Ser	Gly	Phe	Phe	Val	Phe	Ser	Arq	Leu	Glu	Val	Thr	Arg	Ala	Glu
258		-	275					280	_				285	_		
		Glu		Lys	Asp	Glu	Phe	Ile	Cys	Arq	Ala	Val	His	Glu	Ala	Ala
260	K-	290		4	- 1		295		-	,		300				
	Ser		Ser	Gln	Thr	Val		Arg	Ala	Val	Ser		Asn	Pro	Gly	Lys
	305					310		,			315				-	320
_																



Please Note:

Use f n and/ r Xaa hav been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequenc which presents at least one n or Xaa.



## VERIFICATION SUMMARY

PATENT APPLICATION: US/09/847,208

DATE: 05/27/2001 TIME: 16:48:08

Input Set : A:\Pto.amc

Output Set: C:\CRF3\05272001\I847208.raw

L:12 M:270 C: Current Application Number differs, Replaced Current Application No L:12 M:271 C: Current Filing Date differs, Replaced Current Filing Date L:3086 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:82 L:3129 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:84 L:3466 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:93 L:3468 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:93 L:3483 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:94 L:4518 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:126 L:6226 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:176 L:6228 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:176 L:6243 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:177 L:6245 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:177